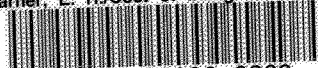


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## **Cost of Living Differences in Colorado: A Summary of County-Level Estimates for 1998**

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# **Cost of Living Differences in Colorado: A Summary of County-Level Estimates for 1998 <sup>1</sup>**

## **Why Look at County-Level Cost of Living Indices?**

The pace of economic change has accelerated across the nation, and Colorado is one of the states most affected. Among the currents buffeting this state are:

- massive in-migration,
- major structural changes in industrial mix,
- continued decline of agriculture as a percent of the state economy,
- a booming service industry,
- high-ticket outdoor recreation, and
- a surge in demand for designer homes in the mountains.

These and many other factors cause shifts and strains on local economies. Some grow while others shrink. As local populations rise or decline, as industries move in or out of an area, demands for life's amenities also change.

Cost of living indices capture some of the aggregate impacts of these changes. The cost of living not only reflects economic change, it can also influence change through corporate and government wage rates, corporate relocation and personal migration decisions, and other factors.

In Colorado, diversity in our geography, resource mix and local histories is mirrored in the composition and dynamics of local economies. County-level cost of living estimates can capture and monitor these influences.

## **What Is a Cost of Living Index?**

The cost of living index (COLI), in theory, measures the cost of maintaining some accepted level of well-being. It requires a base reference point (the accepted level). Alternative locations are compared against this reference point. The index evaluates the cost of household expenditures for different types of items, the so-called "basket of goods," that represent a certain lifestyle. As current prices vary from year to year and location to location, the COLI also varies.

Many COLI estimates use national averages and compare local costs against them. Within-state comparisons are also important and perhaps are more relevant for local economic management. For example, in Colorado the cost of living in the most expensive counties is as much as 70 to 80 percent higher than in the least expensive counties.

## **The 1998 Colorado County Study**

In mid-1998, data were collected for county COLI estimates in support of certain administrative decisions then under consideration. The method developed and used nationally for many years by the American Chamber of Commerce Research Association (ACCRA) was adapted slightly and used here. In this study, Colorado average prices were used as the base for comparison. The COLI estimates below reflect the cost of achieving the Colorado average level of well-being.

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<sup>1</sup>This paper is a summary of "1998 Cost of Living Indices for Colorado's Counties," by Elizabeth Hornbrook Garner and Jerry B. Eckert, Department of Agricultural Economics, Colorado State University, Fort Collins. Copies of the full report may be obtained from the authors.

Cooperative Extension (CE) personnel collected the data for this study. Six small counties without CE offices were not included. Furthermore, data were collected only in the town where the CE office was located. Results technically reflect conditions only in those towns.

Prices or costs were collected for 59 goods and services selected by ACCRA to represent a middle-management life style. Each individual price was indexed to the state average, grouped by commodity class, and then combined into an overall index based on the importance of each commodity group in overall spending. In descending order of importance, these groups were:

- miscellaneous goods and services – 33 percent,
- housing – 28 percent,
- groceries – 16 percent,
- transportation – 10 percent,
- utilities – 8 percent, and
- medical – 5 percent.

Results are shown in Table 1 and Figure 1. Because small differences are inconsequential, counties are grouped into clusters showing their general relationship to the state average, which has a COLI of 1.00.

Values ranged from a high of 1.290 in Teller County to a low of 0.734 in Baca County. These values indicate that the cost of living in Teller and Baca counties is 29 percent higher and 27 percent lower, respectively, than the state average. Data were not obtained in Pitkin and Ouray counties, but they probably fall in the Very High category. A broad central core of 27 counties are within  $\pm 10$  percent of the state average. Only four counties fall outside a range of  $\pm 20$  percent.

**Table 1: County-Level Composite Cost of Living Indices for Colorado, Mid-1998**

County	COLI	County	COLI	County	COLI	County	COLI
<b>Very High</b>		<b>Above Average</b>		<b>Below Average</b>		<b>Low</b>	
Teller	1.290	Routt	1.096	Mesa	0.992	Dolores	0.890
Eagle	1.260	Grand	1.088	Rio Blanco	0.989	Pueblo	0.888
Summit	1.222	Jackson	1.086	San Miguel	0.978	Rio Grande	0.882
<b>High</b>		Boulder	1.085	Morgan	0.955	Kit Carson	0.874
La Plata	1.158	Las Animas	1.085	Bent	0.953	Saguache	0.872
Archuleta	1.144	Gunnison	1.081	Logan	0.944	Moffat	0.870
Otero	1.139	El Paso	1.076	Custer	0.936	Lincoln	0.869
Denver	1.130	Douglas	1.071	Sedgwick	0.931	Phillips	0.862
Garfield	1.129	Mineral	1.058	Alamosa	0.927	Conejos	0.858
Jefferson	1.126	Weld	1.058	Crowley	0.919	Washington	0.858
Elbert	1.113	Adams	1.053	Montrose	0.917	Delta	0.848
Park	1.111	Huerfano	1.052	Cheyenne	0.914	Kiowa	0.848
Montezuma	1.110	Larimer	1.052	Costilla	0.913	Yuma	0.834
Chaffee	1.101	Arapahoe	1.036			Prowers	0.830
						Fremont	0.818
						<b>Very Low</b>	
						Baca	0.734

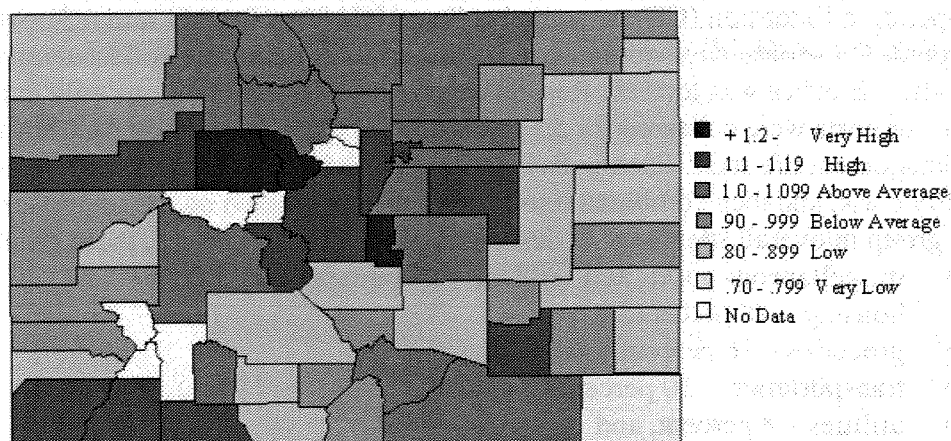


Figure 1: Composite Cost of Living Indices for Colorado, Mid-1998.

Some general patterns appear from the figure. The four highest cost of living counties occur in mountain areas, three of them with local economies dominated by high-mountain recreation and residential or second homes for the affluent. Many of the higher COLI counties follow the I-70 corridor west into the mountains and eastward from the Denver metro area. Estimates for counties in the southwest corner of the state were also in the high category, driven largely by housing prices. Above-average COLI estimates are common in the north-central counties, along the Front Range, and in a cluster of rural counties toward the southeast.

Lower COLI counties are primarily located in the eastern plains, along the western border outside the I-70 corridor, and in the San Luis Valley.

### The Special Issue of Housing

Of all categories, housing cost was the most variable between counties, followed by utilities and medical care. The cost of groceries was least variable, while transportation and miscellaneous costs showed moderate variability. Utility costs reflected average temperatures, the availability of natural gas vs. propane as a secondary fuel, and pricing by electricity suppliers. Health-care costs partly reflect local average incomes, the thought being that doctors and dentists charge in some relationship to their patients' ability to pay.

Housing cost is not only the most variable category but also the second most important as weighted by ACCRA. This variability and importance lead to the conclusion that housing cost is the basic driving force in overall county cost of living. Each of the highest 16 counties (counties with COLIs > 1.085) had its overall COLI raised by the housing index (Table 2). Similarly, 14 of the 16 cheapest counties (COLIs < 0.90) had their cost of living lowered by the housing index.

The variability of housing cost was nearly 3.5 times the variability of all nonhousing costs combined. Colorado's housing costs may be worthy of government or corporate policy attention in determining salaries and wages. To the extent that cost of living influences private or corporate decisions to settle or move, housing cost would seem to figure large as a factor.

## Nominal County Incomes and Real Purchasing Power

Cost of living estimates can be used to adjust local income figures to reflect estimated purchasing power. This was calculated by dividing 1996 county incomes, obtained from the U.S. Bureau of Economic Analysis, with the COLI developed for each town surveyed. Data appear in Table 3.

Across the state, these differentials can be significant. In the most extreme comparison, an individual in Baca County with an annual disposable income of \$20,000 can purchase a basket of goods and services that would require an income of \$35,150 in Teller County.

Nine of the 10 counties with the highest nominal incomes also have cost of living indices greater than 1.000. Effective purchasing power is actually below what measured income levels would suggest.

Of the 20 poorest counties in Colorado, twelve have a below-average cost of living. In those counties, purchasing power will exceed what nominal income figures would suggest. The remaining eight of these poorer counties have a higher than average cost of living. Effective poverty in these counties is likely more extensive than governmental-supplied income figures suggest.

A cluster of counties in which incomes are above average and cost of living is below average occurs in the northeastern and east-central portions of the state. Here, incomes are buoyed by strong agricultural and agribusiness sectors, yet costs of living are well below state averages, sustained in almost all cases by very low housing costs.

**Table 2: Effects of Housing Cost on Overall COLI**

County	Composite COLI	Housing Cost Index	COLI w/o Housing	Effect of Housing Cost
Teller	1.290	1.514	1.203	0.087
Eagle	1.260	1.804	1.048	0.212
Summit	1.222	1.635	1.062	0.160
La Plata	1.158	1.415	1.058	0.100
Archuleta	1.144	1.300	1.084	0.061
Otero	1.139	1.185	1.121	0.018
Denver	1.130	1.395	1.027	0.103
Garfield	1.129	1.324	1.053	0.076
Jefferson	1.126	1.150	1.117	0.009
Elbert	1.113	1.282	1.048	0.066
Park	1.111	1.357	1.015	0.096
Montezuma	1.110	1.204	1.074	0.037
Chaffee	1.101	1.326	1.013	0.088
Routt	1.096	1.394	0.980	0.116
Grand	1.088	1.143	1.067	0.021
Jackson	1.086	1.108	1.077	0.009
Boulder	1.085	1.053	1.098	(0.013)
Las Animas	1.085	1.045	1.100	(0.016)
Gunnison	1.081	1.122	1.066	0.016
El Paso	1.076	1.042	1.090	(0.013)
Douglas	1.071	1.077	1.069	0.002
Mineral	1.058	1.052	1.060	(0.002)
Weld	1.058	1.204	1.001	0.057
Adams	1.053	1.130	1.024	0.030
Huerfano	1.052	0.739	1.174	(0.122)
Larimer	1.052	1.070	1.045	0.007
Arapahoe	1.036	1.272	0.945	0.091
Mesa	0.992	1.002	0.988	0.004
Rio Blanco	0.989	0.825	1.053	(0.064)
San Miguel	0.978	0.961	0.985	(0.007)
Morgan	0.955	1.005	0.935	0.020
Bent	0.953	0.908	0.970	(0.017)
Logan	0.944	1.129	0.872	0.072
Custer	0.936	0.906	0.948	(0.012)
Sedgwick	0.931	0.687	1.026	(0.095)
Alamosa	0.927	0.897	0.939	(0.012)
Crowley	0.919	0.624	1.033	(0.115)
Montrose	0.917	0.876	0.933	(0.016)
Cheyenne	0.914	1.013	0.875	0.039
Costilla	0.913	0.670	1.008	(0.095)
Dolores	0.890	0.524	1.032	(0.142)
Pueblo	0.888	0.801	0.921	(0.034)
Rio Grande	0.882	0.621	0.983	(0.101)
Kit Carson	0.874	0.743	0.925	(0.051)
Saguache	0.872	0.588	0.982	(0.110)
Moffat	0.870	0.703	0.935	(0.065)
Lincoln	0.869	0.606	0.971	(0.102)
Phillips	0.862	0.785	0.892	(0.030)
Conejos	0.858	0.680	0.927	(0.069)
Washington	0.858	0.807	0.878	(0.020)
Delta	0.848	0.892	0.832	0.017
Kiowa	0.848	0.641	0.929	(0.081)
Yuma	0.834	0.747	0.868	(0.034)
Prowers	0.830	0.555	0.937	(0.107)
Fremont	0.818	0.838	0.811	0.008
Baca	0.734	0.502	0.824	(0.090)

**Table 3: Influence of COLI on Real Purchasing Power by County.**

County	Nominal Income	COLI	Purchasing Power	Difference (\$)	Difference (%)
Douglas	33,352	1.071	31,139	(2,213)	-6.6%
Arapahoe	32,522	1.036	31,379	(1,143)	-3.5%
Denver	32,148	1.130	28,449	(3,699)	-11.5%
Eagle	30,398	1.260	24,134	(6,264)	-20.6%
Boulder	29,914	1.085	27,562	(2,352)	-7.9%
Summit	29,141	1.222	23,838	(5,303)	-18.2%
Jefferson	27,912	1.126	24,783	(3,129)	-11.2%
Routt	27,016	1.096	24,648	(2,368)	-8.8%
San Miguel	25,352	0.978	25,924	572	2.3%
Larimer	23,841	1.052	22,665	(1,176)	-4.9%
Kit Carson	23,306	0.874	26,654	3,348	14.4%
Yuma	23,250	0.834	27,870	4,620	19.9%
Washington	23,086	0.858	26,907	3,821	16.6%
Phillips	22,942	0.862	26,613	3,671	16.0%
Sedgwick	22,517	0.931	24,189	1,672	7.4%
Elbert	22,496	1.076	20,899	(1,597)	-7.1%
Grand	22,415	1.088	20,603	(1,812)	-8.1%
El Paso	22,320	1.113	20,051	(2,269)	-10.2%
La Plata	22,262	1.158	19,232	(3,030)	-13.6%
Logan	22,072	0.944	23,387	1,315	6.0%
Mineral	21,602	1.058	20,423	(1,179)	-5.5%
Kiowa	21,563	0.848	25,419	3,856	17.9%
Teller	21,099	1.290	16,356	(4,743)	-22.5%
Garfield	21,078	1.129	18,674	(2,404)	-11.4%
Moffat	20,559	0.870	23,629	3,070	14.9%
Park	20,487	1.111	18,442	(2,045)	-10.0%
Adams	20,337	1.053	19,309	(1,028)	-5.1%
Cheyenne	20,122	0.914	22,020	1,898	9.4%
Mesa	19,806	0.992	19,972	166	0.8%
Morgan	19,574	0.955	20,498	924	4.7%
Weld	19,328	1.058	18,275	(1,053)	-5.4%
Pueblo	19,235	0.888	21,666	2,431	12.6%
Baca	19,230	0.734	26,191	6,961	36.2%
Montrose	18,831	0.917	20,540	1,709	9.1%
Prowers	18,598	0.830	22,403	3,805	20.5%
Rio Blanco	18,335	0.989	18,539	204	1.1%
Gunnison	18,247	1.081	16,874	(1,373)	-7.5%
Otero	18,197	1.139	15,977	(2,220)	-12.2%
Jackson	17,897	1.086	16,481	(1,416)	-7.9%
Montezuma	17,741	1.110	15,980	(1,761)	-9.9%
Alamosa	17,434	0.927	18,804	1,370	7.9%
Lincoln	17,240	0.869	19,847	2,607	15.1%
Rio Grande	17,124	0.882	19,417	2,293	13.4%
Custer	16,847	0.936	17,991	1,144	6.8%
Chaffee	16,636	1.101	15,109	(1,527)	-9.2%
Delta	16,405	0.848	19,334	2,929	17.9%
Bent	15,950	0.953	16,738	788	4.9%
Dolores	15,914	0.890	17,880	1,966	12.4%
Huerfano	15,659	1.052	14,886	(773)	-4.9%
Las Animas	15,493	1.085	14,282	(1,211)	-7.8%
Costilla	15,143	0.913	16,581	1,438	9.5%
Fremont	14,926	0.818	18,238	3,312	22.2%
Archuleta	14,590	1.144	12,749	(1,841)	-12.6%
Conejos	12,926	0.858	15,063	2,137	16.5%
Saguache	12,371	0.872	14,190	1,819	14.7%
Crowley	12,175	0.919	13,253	1,078	8.9%